

## **Amendments to the Claims:**

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

1 - 23. (Cancelled).

24. (Cancelled)

25. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said non-Newtonian additive consists of calcium aluminate cement.

26. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said hydraulically settable cement consists essentially of Portland Type 1 cement.

27. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43 wherein said non-Newtonian additive is an ~~organic~~ associative thickener which is a polyoxyalkylene block copolymer having an internal hydrophilic block containing polymerized ethylene oxide and optionally randomly copolymerized propylene oxide, and terminal hydrophobes.

28. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said viscosity control agent is selected from the group consisting of cellulose derivatives, polyvinylalcohol, acrylate polymers, and mixtures thereof.

29. (Currently Amended) The pumpable, sprayable mortar of claim [[24]] 43, wherein said matrix interactive reinforcing fibers are oiled polyvinylalcohol fibers.

30. (Currently Amended) The pumpable, sprayable mortar of claim [[24]] 43, which contains ~~Portland cement as the hydraulically settable cement~~, calcium aluminate cement as the non-Newtonian additive, and a cellulose derivative as the viscosity control agent.

31. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said reinforcing fibers are present in an amount of 0.7 to 3.0 volume percent.

32. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said reinforcing fibers are present in an amount of 1.5 to 2.5 volume percent.

33. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43 which, when cured, exhibits a strain of at least 0.5% prior to failure.

34. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43 which, when cured, exhibits a strain of at least 1.0% prior to failure.

35. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43 which, when cured, exhibits a strain of at least 1.5% prior to failure.

36. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43 wherein the reinforcing fibers have a modulus of elasticity of from 10 to 300 GPa.

37. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said reinforcing fibers have a strength of 800 mPa or more.

38. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said superplasticizer is present in an amount of from 0.3 weight percent to 5 weight percent based on the weight of the sprayable mortar.

39. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, wherein said viscosity control agent consists essentially of one or more cellulose derivatives selected from the group consisting of methyl cellulose, hydroxyethylcellulose, hydroxypropylcellulose, and carboxymethyl cellulose, the total amount of cellulose derivatives being from 0.1 weight percent to about 5 weight percent based on the total weight of sprayable mortar.

40. (Currently Amended) The pumpable and sprayable mortar of claim [[24]] 43, further comprising aggregate in an amount up to 200 weight percent relative to the weight of the remaining mortar components.

41. (Previously Presented) The pumpable and sprayable mortar of claim 40, wherein the aggregate consists of sand or ground stone.

42. (Previously Presented) The pumpable and sprayable mortar of claim 26, wherein at least a portion of said aggregate is a light weight aggregate having a mean particle size according to ASTM C125 of between 10  $\mu\text{m}$  and 1000  $\mu\text{m}$ .

43. (New) A pumpable and sprayable, fiber-reinforced, strain hardening hydraulically settable mortar comprising

- a) at least one of portland cement or pozzolanic cement,
- b) a strain hardening amount of matrix-interactive reinforcing fibers within the range of 0.1 to less than 4.0 volume percent relative to the volume of the mortar, said matrix interactive reinforcing fibers having a length of from about 4 mm to about 30 mm, a fiber diameter between 10  $\mu\text{m}$  and 150  $\mu\text{m}$ , a modulus of elasticity between 10 GPa and 300 GPa, an interface frictional stress between 0.5 and 3.0 MPa, and interfacial chemical bonding between 0.1 J/m<sup>2</sup> and 4.0 J/m<sup>2</sup>;
- c) at least one non-Newtonian additive selected from the group consisting of calcium aluminate cement and organic non-Newtonian associative thickeners, such that the mortar viscosity during pumping and spraying is lower than the viscosity at low shear:

d) water in a weight ratio of 0.2:1 to 0.6:1 based on the weight of the hydraulically settable cement fraction;

e) a superplasticizer in an amount of 0.1 weight percent to about 10 weight percent based on the weight of the sprayable and pumpable mortar;

f) a viscosity control agent in an amount of from 0.1 weight percent to about 5 weight percent based on the weight of the pumpable and sprayable mortar.

44. (New) The pumpable and sprayable mortar of claim 43 which, when sprayed on an overhead horizontal surface, is able to produce at least a 10 mm thick single layer without dripping or sagging.

45. (New) The pumpable and sprayable mortar of claim 43 which, when sprayed on an overhead horizontal surface, is able to produce at least a 20 mm thick single layer without dripping or sagging.

46. (New) The pumpable and sprayable mortar of claim 43, wherein the superplasticizer is present in an amount of 0.3 weight percent to 5 weight percent.

47. (New) The pumpable and sprayable mortar of claim 43, wherein calcium aluminate cement is present in an amount of 2.5 to 15 weight percent based on the total of calcium aluminate cement, and the portland cement and pozzolanic cement of component a).

48. (New) The pumpable and sprayable mortar of claim 43, wherein calcium aluminate cement is present in an amount of 3.5 to 8 weight percent based on the total of calcium aluminate cement, and the portland cement and pozzolanic cement of component a).